UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,934	02/02/2004	Manas Kumar Behera	200311799-1	8516

22879 7590 02/27/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
TAYLOR, NICHOLAS R	
ART UNIT	**PAPER NUMBER**
2141	

NOTIFICATION DATE	DELIVERY MODE
02/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/768,934	BEHERA ET AL.	
	Examiner	Art Unit	
	NICHOLAS TAYLOR	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 have been presented for examination and are rejected.

Response to Arguments

2. Applicant's arguments filed November 29th, 2007, have been fully considered but they are deemed not persuasive. Applicant's remaining arguments, which are not addressed below, are moot in view of the new grounds of rejection.

3. In the remarks, applicant argued in substance that:

(A) The prior art of Beaudoin does not teach exchanging connections of the working and active databases. Rather, Beaudoin merely teaches connections that are static and not exchangeable.

As to point (A), Beaudoin teaches exchanging connections of the working and active databases in a network topology system (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active). For example, a client may connect to a first database and request that certain operations be performed, after which the connection is exchanged to a second database (Beaudoin, process of paragraphs 0032 and 0033). Given a broadest reasonable interpretation of the

language as claimed, moving a connection between a first and second database source would reasonably read on the limitation of "exchanging" a connection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 9-14, 16, 17, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Beaudoin, et al. (U.S. PGPub 2003/0112958).

6. As per claims 9 and 22, Beaudoin teaches a method for managing a network using a plurality of databases, the method comprising:

discovering the network; updating a topology representation of the network in a working database based on the discovering; (Beaudoin, paragraphs 0027-0029 and fig. 4, where the network topology representation is created or updated)

simultaneous with the discovering and the updating, providing access to a topology representation of the network in an active database; and (Beaudoin, paragraphs 0027, 0028, fig. 4's structure, and paragraph 0032, where the topology data is described, e.g., in paragraph 0027-0029 and is shown, e.g., in figs. 2-6)

exchanging connections of the working and active databases (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active).

7. As per claims 10 and 23, Beaudoin teaches the system further comprising: repeating the discovering, updating, providing, and exchanging (Beaudoin, paragraphs 0027-0029, where the processes are all repeated).

8. As per claim 11, Beaudoin teaches the system further wherein the exchanging is performed upon completion of the discovering of the network and updating the topology representation (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active).

9. As per claim 12, Beaudoin teaches the system further comprising partitioning a topology database to form the working database and the active database (Beaudoin, paragraphs 0030 and 0032, e.g., where the data is partitioned into “sets” when forming the databases).

10. As per claim 13, Beaudoin teaches a system for managing a network using a plurality of databases, the system comprising:

means for discovering a topology of the network and updating a topology of the network in a first database connected to the means for discovering; and (Beaudoin,

paragraphs 0027, 0028, fig. 4's structure, and paragraph 0032, where the topology data is described, e.g., in paragraph 0027-0029 and is shown, e.g., in figs. 2-6)

means for connecting the means for discovering to the first database while at the same time connecting clients to a second database containing a topology of the network, and (Beaudoin, paragraphs 0028, 0030, and 0032 using the structure of fig. 4)

for connecting the clients to the first database after the means for discovering updates the topology of the network (Beaudoin, paragraphs 0027, 0028, 0032, and 0033, and fig. 1, where the clients access the first database).

11. As per claim 14, Beaudoin teaches the system further wherein the means for connecting exchanges connections of the first and second databases among the means for discovering and the clients after the means for discovering completes discovery of the network (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active after determining network layout 3 of fig. 1).

12. As per claim 16, Beaudoin teaches the system further comprising means for monitoring a health of the network based on the network topology in the second database (Beaudoin, paragraph 0035, 0044, and 0051 where the health and other network statistics are monitored).

13. As per claim 17, Beaudoin teaches the system further comprising means for detecting a fault in the network, comparing the topologies in the first and second

databases, and determining a source of the fault based on the comparing (Beaudoin, e.g., in paragraphs 0035, 0044, 0045, where topology comparisons are utilized).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 1-3, 5-8, 18, 19, 21, and 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin, et al. (U.S. PGPub 2003/0112958) and Gupta et al. (U.S. Patent 7,330,859).

16. As per claims 1 and 18, Beaudoin teaches a method for managing a network using a plurality of databases, the method comprising:

selecting a first one of the plurality of databases that contains a topology of the network, as an active database that is accessible for providing information related to the topology of the network in READ only mode; (Beaudoin, paragraphs 0027, 0028, fig. 4's structure, and paragraph 0032, where the topology data is described, e.g., in paragraph 0027-0029 and is shown, e.g., in figs. 2-6)

selecting a second one of the plurality of databases that contains a topology of the network, as a working database for receiving topology updates; (Beaudoin, paragraphs 0028, 0030, and 0032 using the structure of fig. 4)

discovering a topology of the network, and updating the second database with the discovered topology; and selecting the second database as the active database (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active).

While Beaudoin teaches the use of an active database that is accessible for providing information related to the topology of the network, Beaudoin fails to teach providing an active database in READ only mode.

Gupta teaches a system with a first and second database in a network system (Gupta, col. 2, line 62 to col. 3, line 29) that uses a READ only mode to make a database inaccessible for client data updates (Gupta, col. 6, lines 4-20; see also col. 1, lines 30-51).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Gupta to provide the read-only access of Gupta in the system of Beaudoin, because read-only access enables reliability and robustness in the cause of alternate database failure by providing data access without creating contention issues (Gupta, col. 1, lines 30-51).

17. As per claim 2, Beaudoin-Gupta teaches the system further wherein before discovering the topology of the network, the active database and the working database contain identical topologies of the network (Beaudoin, paragraphs 0027-0029 and 0032).

18. As per claims 3 and 19, Beaudoin-Gupta teaches the system further comprising: selecting the first database as the working database; discovering a topology of the network, and updating the first database with the discovered topology; and selecting the first database as the active database (Beaudoin, paragraphs 0027, 0028, fig. 4's structure, and paragraph 0032).

19. As per claims 5 and 21, Beaudoin-Gupta teaches the system further comprising: monitoring a health of the network during the discovering based on the network topology in the active database (Beaudoin, paragraph 0035, 0044, and 0051 where the health and other network statistics are monitored).

20. As per claim 6, Beaudoin-Gupta teaches the system further wherein the discovering returns a connectivity of the network (Beaudoin, paragraph 0035).

21. As per claim 7, Beaudoin-Gupta teaches the system further wherein the discovering returns a Layer 2 connectivity of the network (Beaudoin, paragraph 0035).

22. As per claim 8, Beaudoin-Gupta teaches the system further comprising:

detecting a fault in the network; comparing the topologies in the working and active databases; determining a source of the fault based on the comparing (Beaudoin, e.g., in paragraphs 0035, 0044, 0045, where topology comparisons are utilized).

23. As per claim 24, Beaudoin teaches a method for managing a network using a plurality of databases, the method comprising:

connecting a first one of the plurality of databases that contains a topology of the network, as an active database accessible by clients for providing information related to the topology of the network in a READ only mode; connecting a second one of the plurality of databases that contains a topology of the network, as a working database for receiving topology updates; (Beaudoin, paragraphs 0028, 0030, and 0032 using the structure of fig. 4)

discovering a topology of the network, and updating the working database with the discovered topology; (Beaudoin, paragraphs 0027, 0028, fig. 4's structure, and paragraph 0032, where the topology data is described, e.g., in paragraph 0027-0029 and is shown, e.g., in figs. 2-6)

connecting the working database as the active database; and connecting one of the plurality of databases as the working database, wherein the database connected as the active database and the database connected as the working database are different databases (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active and all databases are different).

While Beaudoin teaches the use of an active database that is accessible for providing information related to the topology of the network, Beaudoin fails to teach providing an active database in READ only mode.

Gupta teaches a system with a first and second database in a network system (Gupta, col. 2, line 62 to col. 3, line 29) that uses a READ only mode to make a

database inaccessible for client data updates (Gupta, col. 6, lines 4-20; see also col. 1, lines 30-51).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Gupta to provide the read-only access of Gupta in the system of Beaudoin, because read-only access enables reliability and robustness in the cause of alternate database failure by providing data access without creating contention issues (Gupta, col. 1, lines 30-51).

24. As per claim 25, Beaudoin-Gupta teaches the system further comprising: repeating the discovering of the network and the updating of the working database, the connecting of the working database as the active database, and the connecting of one of the plurality of databases as the working database (Beaudoin, paragraphs 0027-0029, where the processes are all repeated).

25. As per claims 26 and 29, Beaudoin-Gupta teaches the system further wherein selecting the second database as the active database comprises exchanging connections of the first database and second database (Beaudoin, paragraphs 0028, 0032, and 0033, where the system selects the second database as active).

26. As per claims 27 and 30, Beaudoin teaches the system further wherein the active database is inaccessible for updating the topology representation of the network.

While Beaudoin teaches the use of an active database that is accessible for providing information related to the topology of the network, Beaudoin fails to teach providing an active database in READ only mode.

Gupta teaches a system with a first and second database in a network system (Gupta, col. 2, line 62 to col. 3, line 29) that uses a READ only mode to make a database inaccessible for client data updates (Gupta, col. 6, lines 4-20; see also col. 1, lines 30-51).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Gupta to provide the read-only access of Gupta in the system of Beaudoin, because read-only access enables reliability and robustness in the cause of alternate database failure by providing data access without creating contention issues (Gupta, col. 1, lines 30-51).

27. As per claim 28, Beaudoin teaches the above, yet fails to teach wherein a database is inaccessible for updating the topology of the network when it is connected to the client.

While Beaudoin teaches the use of an active database that is accessible for providing information related to the topology of the network, Beaudoin fails to teach providing an active database in READ only mode.

Gupta teaches a system with a first and second database in a network system (Gupta, col. 2, line 62 to col. 3, line 29) that uses a READ only mode to make a

database inaccessible for client data updates (Gupta, col. 6, lines 4-20; see also col. 1, lines 30-51).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Gupta to provide the read-only access of Gupta in the system of Beaudoin, because read-only access enables reliability and robustness in the cause of alternate database failure by providing data access without creating contention issues (Gupta, col. 1, lines 30-51).

28. Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin, et al. (U.S. PGPub 2003/0112958) and Gupta et al. (U.S. Patent 7,330,859), further in view of Galand, et al. (U.S. Patent 6,038,212).

29. As per claims 4 and 20, Beaudoin-Gupta teaches the above, including moving between working and active databases (Beaudoin, paragraphs 0028-0035), yet fails to teach the system further comprising: selecting a third one of the plurality of databases as the working database; discovering a topology of the network, and updating the third database with the discovered topology; and selecting the third database as the active database.

Galand teaches a method of using a large number of topology databases in a data communications network to enable topology mapping and network management (Galand, see fig. 5 topology database structure, col. 9, lines 9-28, and col. 10, line 33 to col. 11, line 4).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Galand to provide the database techniques of Galand in the system of Beaudoin, because doing so would enable improved performance through minimizing the processing time necessary to update a small number of topology databases (Galand, col. 2, lines 45-53). One of ordinary skill in the art would further be motivated to use the techniques taught in Galand to increase the fault-tolerance and network stability by large plurality of topology database storage alternatives (see Galand, col. 5, lines 8-11).

30. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin, et al. (U.S. PGPub 2003/0112958) and Galand, et al. (U.S. Patent 6,038,212).

31. As per claim 15, Beaudoin teaches the above, including moving between working and active databases (Beaudoin, paragraphs 0028-0035), yet fails to teach the system further wherein after the means for discovering completes discovery of the network, the means for connecting reconnects the clients from the second database to the first database and connects the means for discovering to a third database.

Galand teaches a method of using a large number of topology databases in a data communications network to enable topology mapping and network management (Galand, see fig. 5 topology database structure, col. 9, lines 9-28, and col. 10, line 33 to col. 11, line 4).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Beaudoin and Galand to provide the database techniques of Galand in the system of Beaudoin, because doing so would enable improved performance through minimizing the processing time necessary to update a small number of topology databases (Galand, col. 2, lines 45-53). One of ordinary skill in the art would further be motivated to use the techniques taught in Galand to increase the fault-tolerance and network stability by large plurality of topology database storage alternatives (see Galand, col. 5, lines 8-11).

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/NT/
Nicholas Taylor
Examiner
Art Unit 2141

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145